

REMARKS

The Examiner has rejected the application on various bases. In response, Applicant has amended the application so as to overcome the rejections of the Examiner. Applicant submits that the application is now in condition for allowance.

The Examiner has rejected the amended claims 1, 23, 44 and 46 under 35 U.S.C. § 112, first paragraph, based on the contention that those claims (1) contained subject matter that was not described sufficiently in the specification, (2) contained subject matter that was contradicted by the specification, and (3) contained subject matter that rendered the claims indefinite. All of these rejections were based on the inclusion of the term “directly” in each of the claims. Solely in order to expedite the prosecution of the application, and without conceding the Examiner’s contentions, Applicant has amended the claims to remove the term “directly.” As will be described in greater detail below, the now-amended claims sufficiently describe the invention without the term “directly.” As the present claims no longer include the term “directly,” Applicant respectfully requests that the Examiner’s rejections now be withdrawn.

The Examiner also rejected claims 1-18, 23-39 and 44-46 under 35 U.S.C. § 102(b), based on the contention that those claims, as written, are anticipated by Weinberg, et al, U.S. Patent No. 5,207,877 (Weinberg ‘877). The Examiner’s rejections utilized the exact same arguments as were contained in the Office Action of March 29, 2001, even though amendments were made to the claims and detailed distinctions provided. Applicant respectfully traverses the Examiner’s rejections. Nevertheless, Applicant has amended the claims in order to better clarify the present invention, and to better illustrate the arguments offered in response to the Office Action mailed on March 29, 2001.

Specifically, Applicant has amended the application to clarify and highlight the three individual structures of the present invention. Applicant has amended Claims 1 and 23 to illustrate

the sanitizing device containing the chemical cell alone, as described in the specification. Further, Applicant has amended Claim 46, and added Claim 56, to illustrate the sanitizing device containing the corona cell alone. Lastly, Applicant has added Claims 55 and 64 to illustrate the electrochemical cell of the present invention. Each embodiment described in these claims is disclosed in the present application. Further, in order to better illustrate the present invention, certain language has been added to some of the claims, as will be discussed in detail below. The amendments made to the claims, in addition to the added claims, detail an invention not shown or taught by Weinberg '877.

(3) Independent claims 1 and 23 were amended to claim a sanitizing device comprising a chemical cell only. Similarly, independent claim 46 was amended and independent claim 56 was added to claim a sanitizing device comprising a corona cell only, wherein the corona cell is composed of specific materials. In both sets of claims, the device operates to sanitize a substance, be it a gas, liquid, or other substance, on contact. Weinberg '877 does not teach or disclose such a device, as it solely includes an electrochemical cell for purifying harmful chemical and biological matter, as well as for degrading pollutants—wherein the device requires the absorption of the contaminants into the electrolyte of the cell before they can be decomposed.

(4) Additionally, independent claims 55 and 64 were added to claim a more specific embodiment of the current electrochemical cell. The claims teach the inclusion of an electrochemical cell, wherein the electrochemical cell is capable of producing an electric field. As is commonly known in the art, electrochemical cells produce an electric field during operation. The field exists between the anode and the cathode of the cell, as well as in the area immediately surrounding the cell. In the present invention, the field, and, more particularly, the ions transported thereby, are used as a sanitizing agent so that, when the particular ions contact the substance, it becomes sanitized.

The Weinberg '877 reference teaches a completely different device than that taught by Applicant's invention, as now claimed in the amended and added claims shown above. The decontamination device taught in Weinberg '877 operates by absorbing the undesired contaminants into electrolyte. As stated within that reference "in all embodiments of the invention, contaminated air is treated in a wet scrubber zone to clean and separate virtually all chemical and biological pollutants from incoming air." (Col. 9, Lines 24-28). After absorption, the "pollutant [sic] are then degraded to substances of lesser toxicity by chemical reaction with the electrochemical regeneratable degradant and/or by electrochemical means at the anode [of the electrochemical cell]." (Col 6, Lines 4-7). Thus, the device taught in Weinberg '877 relies on the contaminants being absorbed into the electrolyte, and then being passed into the cell in order to operate properly. The contaminants actually become a part of the device before they can be decontaminated. Contrarily, the present invention operates to sanitize contaminants by the generated effects of Applicant's sanitizing device
- - e.g. corona discharge, ion generation, etc.

Further, Weinberg '877 not only claims a different invention than the present application, but Weinberg '877 teaches away from the present invention. As stated above, the sanitizing device described by Applicant is capable of sanitizing upon contact of the discharge effect with a substance.

To require the incorporation of the contaminants into Applicant's cell would frustrate the purpose of the invention, that is to sanitize upon contact with the discharge effect of the cell. Thus, not only does Weinberg '877 teach a different device than disclosed in the present application, but it does not even suggest the present invention. Therefore, Applicant submits that the amendments presented in the present application have overcome the Examiner's rejections, and respectfully requests that the rejections be withdrawn.

The Examiner has also rejected claims 19, 20-22 and 40-43 under 35 U.S.C. §103(a), based on the contention that those claims, as written, are unpatentable over Weinberg, et al, in view of Stein, et al. Applicant submits that the rejected claims all depend from independent claims 1 and 23, and as such contain all of the limitations of those claims. Further, pursuant to the discussion contained above, independent claims 1 and 23, along with added claims 47-65, are now in condition for allowance. Applicant respectfully suggests that the Examiner's obviousness rejection is now moot, and asks that it, too, be withdrawn.

The present communication contains amendments and additions to the claims that modify both the total number of independent claims, and the total number of claims contained within the application. Applicant has already paid sufficient funds for the 3 independent claims originally filed, and 45 total claims, as originally filed. The present amendments add an additional 4 independent claims, and an additional 14 extra claims. Therefore, Applicant herein submits a check in the amount of \$588.00.

After a review of the above arguments, but before substantive examination of the application is undertaken further, Applicant respectfully requests a telephonic interview with the Examiner in order to discuss the present application. Therefore, a telephone call at (312) 226-1818 is requested at the Examiner's earliest convenience.

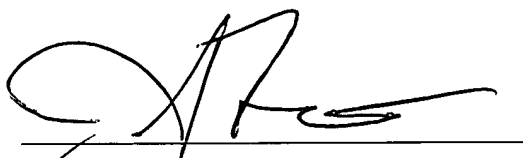
In light of the foregoing, Applicant submits that the application should be in condition for allowance. Accordingly, reconsideration is respectfully requested.

Should anything further be required, a telephone call to the undersigned, at (312) 226-1818, is respectfully invited.

Respectfully submitted,

FACTOR & PARTNERS, LLC

Dated: February 5, 2002

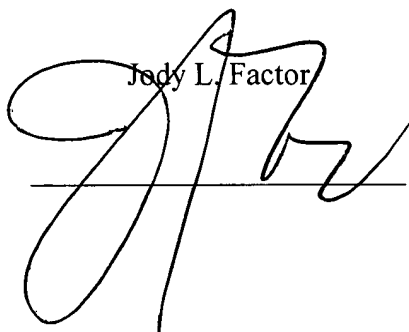


Jody L. Factor
One of Attorneys for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on February 5, 2002.

Jody L. Factor



AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES

1. (Twice amended) A sanitizing device, comprising:
 - a sanitizing component for [directly] sanitizing a surface, liquid, gas, and/or associated surrounding environment, wherein the sanitizing component includes a [an electrochemical,]chemical [and/or corona]cell; and
 - a housing for retaining the sanitizing component.
4. (Once amended) The sanitizing device according to claim [1]55, further comprising power means for powering an electrochemical [and/or corona]cell, wherein the power means consists of AC current and/or DC current.
6. (Once amended) The sanitizing device according to claim [5]55, wherein the electrochemical cell comprises an anodic component, a cathodic component, and an electrolyte component.
15. (Once amended) The sanitizing device according to claim [5]55 wherein [its] the electrochemical [and/or corona] cell allows fluid to pan through [their]its structure.
23. (Twice amended) A multi-layer composite sanitizing device, comprising:
 - a particulate filtering component capable of substantially trapping particulates thereon;
 - a sanitizing component for [directly] sanitizing a surface, liquid, gas, and/or associated surrounding environment, wherein the sanitizing component includes [an electrochemical,] a chemical [and/or corona]cell; and
 - a housing for retaining the particulate filtering component and the sanitizing component.

26. (Once amended) The multi-layer composite sanitizing device according to claim [23]64, further comprising power means for powering an electrochemical [and/or corona] cell, wherein the power means consists of AC current and/or DC current.

28. (Once amended) The multi-layer composite sanitizing device according to claim [27]64, wherein the electrochemical cell comprises an anodic component, a cathodic component, and an electrolyte component.

44. (Once amended) A process for sanitizing a liquid, gas or other matter, comprising the steps of:

- providing a sanitizing component such as [an electrochemical,] a chemical, and/or corona cell retained within a housing;

- passing liquid, gas, or other matter over the sanitizing component;
- contacting the sanitizing component with the liquid, gas, or other matter, and
- substantially sanitizing the liquid, gas, or other matter.

46. (Once amended) A sanitizing device, comprising:

- a sanitizing component for [directly] sanitizing a surface, liquid, gas, and/or associated surrounding environment, wherein the sanitizing component includes a [an electrochemical, chemical and/or] corona cell comprising electrodes formed from one of the group of titanium, nickel, steel, copper, silver, platinum, tungsten, palladium, aluminum, conductive ceramics, dielectric materials, and mixtures and alloys thereof; and

- a housing for retaining the sanitizing component.